Amended Claims

Claims 1-5 (canceled).

6. **(previously presented)** A method for administering a live bacterial vaccine to a mammal, wherein the method comprises injecting into a submucosal layer of the mammal an immunogenically effective amount of the vaccine.

7. **(currently amended)** The method according to claim 6, wherein the live bacterium of the vaccine is selected from the group consisting of *Actinobacillus equili, Actinobacillus pleuropneumoniae, Actinomyces pyogenes, Bordetella bronchiseptica, Brucella abortus, Clostridium perfringens, Corynebacterium bovis, Corynebacterium pseudotuberculosis, Erysipelothrix rhusiopathiae, Escherichia coli, Haemophilus parasuis, Leptospira canicola, Leptospira hardjo, Leptospira icterohaemorrhagiae, Leptospira pomona, Mycobacterium bovis, Mycoplasma bovis, Mycoplasma hyopneumoniae, Noccardia asteroides, Pasteurella haemolytica,* **[[*P.*]]** ***Pasteurella*** *multocida, Pseudomonas mallei, Rhodococcus equi, Salmonella cholerasuis, Salmonella dublin, Salmonella typhimurium, Serpulina hyodysenteriae, Staphylococcus aureus, Streptococcus agalactiae, Streptococcus equi, Streptococcus pneumoniae, Streptococcus suis, Streptococcus uberis,* and *Streptococcus zooepidemicus.*

8. **(currently amended)** The method according to claim 6, wherein the mammal is a horse ~~**, ruminant, pig, or dog**~~.

9. **(previously presented)** A method for reducing the amount of adverse reactions in a mammal at an injection site of a live bacterial vaccine, wherein:

the method comprises administering submucosally the vaccine, whereby the amount of adverse reactions at the injection site is reduced,

the live bacterial vaccine comprises bacteria that cause abscess formation when administered intramuscularly, and

the reduction of the amount of adverse reactions is measured by the amount or size of abscesses or lesions at the mucosal injection site compared to an intramuscular injection site.

10. **(previously presented)** The method according to claim 9, wherein the vaccine is administered into the submucosa of the labiae.

11. **(currently amended)** The method according to claim 9, wherein the live bacterium of the vaccine is selected from the group consisting of *Actinobacillus equili, Actinobacillus pleuropneumoniae, Actinomyces pyogenes, Bordetella bronchiseptica, Brucella abortus, Clostridium perfringens, Corynebacterium bovis, Corynebacterium pseudotuberculosis, Erysipelothrix rhusiopathiae, Escherichia coli, Haemophilus parasuis, Leptospira canicola, Leptospira hardjo, Leptospira icterohaemorrhagiae, Leptospira pomona, Mycobacterium bovis, Mycoplasma bovis,* **[[*M.*]]** ***Mycoplasma*** *hyopneumoniae, Noccardia asteroides, Pasteurella haemolytica, Pasteurella multocida, Pseudomonas mallei, Rhodococcus equi, Salmonella cholerasuis, Salmonella dublin, Salmonella typhimurium, Serpulina hyodysenteriae, Staphylococcus aureus, Streptococcus agalactiae, Streptococcus equi, Streptococcus pneumoniae, Streptococcus suis, Streptococcus uberis,* and *Streptococcus zooepidemicus.*

12. **(new)** The method according to claim 6, wherein the live bacterium of the vaccine is selected from the group consisting of *Actinobacillus pleuropneumoniae, Bordetella bronchiseptica, Brucella abortus, Clostridium perfringens, Corynebacterium pseudotuberculosis, Erysipelothrix rhusiopathiae, Escherichia coli, Mycobacterium bovis, Mycoplasma hyopneumoniae, Pasteurella haemolytica, Pasteurella multocida, Rhodococcus equi, Salmonella cholerasuis, Salmonella dublin, Salmonella typhimurium, Staphylococcus aureus, Streptococcus pneumoniae, Streptococcus suis,* and *Streptococcus uberis.*

13. **(new)** The method according to claim 12, wherein the mammal is a horse.

14. **(new)** The method according to claim 12, wherein the mammal is a ruminant.

15. **(new)** The method according to claim 12, wherein the mammal is a pig.

16. **(new)** The method according to claim 12, wherein the mammal is a dog.

17. **(new)** The method according to claim 6, wherein the mammal is a ruminant.

18. **(new)** The method according to claim 6, wherein the mammal is a pig.

19. **(new)** The method according to claim 6, wherein the mammal is a dog.

20. **(new)** The method according to claim 9, wherein the live bacterium of the vaccine is selected from the group consisting of *Actinobacillus pleuropneumoniae, Bordetella bronchiseptica, Brucella abortus, Clostridium perfringens, Corynebacterium pseudotuberculosis, Erysipelothrix rhusiopathiae, Escherichia coli, Mycobacterium bovis, Mycoplasma hyopneumoniae, Pasteurella haemolytica, Pasteurella multocida, Rhodococcus equi, Salmonella cholerasuis, Salmonella dublin, Salmonella typhimurium, Staphylococcus aureus, Streptococcus pneumoniae, Streptococcus suis,* and *Streptococcus uberis*.